Impact of Dividend Policy on Corporate Financial Performance in the Finnish Stock Market

Storozhenko Ilya

Bachelor’s Thesis
May 2023
International Business
Storozhenko, Ilya

Impact of Dividend Policy on Corporate Financial Performance in the Finnish Stock Market

Jyväskylä: Jamk University of Applied Sciences, September 2020, 48 pages.

Degree Programme in Business Administration. Bachelor’s thesis.

Permission for open access publication: Yes

Language of publication: English

Abstract

The recent global events, including the Covid-19 crisis, have introduced significant uncertainties and disruptions in the market, leading to decreased investors' risk appetite. In such times, stable and well-structured markets with transparent reporting systems and high reputations tend to attract investor interest. The study focuses on the Finnish market, which is known for stability, and high credibility among investors. Current research paper recognizes the importance of dividends as a crucial aspect of a company's payout policy, influencing investors' decisions.

To meet the research objectives, quantitative data of 70 Finnish publicly traded dividend-paying companies for the period from 2019 to 2022 was collected from Nasdaq Helsinki. However, by analyzing the data the research aims to provide insights applicable to the broader markets. The Finnish market's resilience and lower exposure to market fluctuations compared to other European markets make it an effective and detailed case study for deriving comprehensive and reliable conclusions.

While dividends are considered as a stable income source for investors, nevertheless their sustainability cannot be guaranteed indefinitely. Therefore, dividends should not be evaluated in isolation but rather in conjunction with other performance indicators. Implementing correlation analysis and building multiple regression models allowed this research to find significant evidence of a positive relationship between dividends and corporate financial performance metrics represented by Return on Assets (ROA) and Return on Equity (ROE), acknowledging that these indicators are the well-known measures of a company's success. The study contributes to the existing body of knowledge by employing indicators selected across various business sectors and capturing significant market movements.

Keywords/tags (subjects)

Dividend, Covid-19, Finnish stock market, multiple regression model, corporate finance, financial performance,

Miscellaneous (Confidential information)
Contents

1 Introduction ........................................................................................................................................... 5
  1.1 Research Background and Motivation.......................................................................................... 5
  1.2 Research Objectives....................................................................................................................... 7
  1.3 Thesis structure .............................................................................................................................. 7

2 Literature review .................................................................................................................................... 7
  2.1 Dividends and Stock Repurchases ................................................................................................. 7
  2.2 Agency Theory ............................................................................................................................... 9
  2.3 Legal Protection and Tax Regulations.......................................................................................... 11
  2.4 Dividend Payout and Models ........................................................................................................ 12
    2.4.1 Miller and Modigliani Model .................................................................................................. 12
    2.4.2 Walter Model ........................................................................................................................... 14
    2.4.3 Gordon Model .......................................................................................................................... 15
    2.4.4 Lintner Model .......................................................................................................................... 17
  2.5 Dividend Signaling Concept .......................................................................................................... 18
  2.6 Industry Impact ............................................................................................................................. 20
  2.7 Financial Performance .................................................................................................................... 22
  2.8 Finnish Corporate Sector ............................................................................................................... 24
  2.9 Covid-19 Impact ............................................................................................................................. 26
  2.10 Hypotheses Formation ................................................................................................................. 27

3 Methodology ........................................................................................................................................ 28
  3.1 Research Design and Approach ...................................................................................................... 28
  3.2 Description of Key Variables ......................................................................................................... 29
  3.3 Results of Data Analysis ............................................................................................................... 31

4 Limitations and Recommendations .................................................................................................... 37

5 Conclusion .......................................................................................................................................... 38

References ............................................................................................................................................... 38

Appendices ........................................................................................................................................... 40

  Appendix 1. List of sampled companies. Nasdaq Helsinki ............................................................... 46

Tables
Table 1. Illustration of Qualitative, Control Variables..........................................................29
Table 2. Illustration of Quantitative Variables........................................................................30
Table 3. Descriptive Statistics of Quantitative Variables..........................................................32
Table 4. Results of Correlation Analysis..................................................................................34
Table 5. Results of Multiple Regression Model for ROE ..........................................................36
Table 6. Results of Multiple Regression Model for ROE............................................................37
1 Introduction

The current paper is a structural research work beginning with introducing a reader to the background information related to the actual study, representing the motives and interests behind the study, which is followed by objectives and questions issued by the author to set the direction of the topic under the study, where explicit purposes of research are indicated. Practical implementation is consistently described in the work process by providing a theoretical base including empirical evidence of past investigations on the related topics, followed by own results and analysis discussion.

1.1 Research Background and Motivation

Dividends are one of the most important financial parts of the payout policy of a company. Their amount, regularity of payments, and growth rate can significantly influence investors’ decisions to buy or not to buy a company’s shares or even sell (McDonald et al., 1975). In other words, to be or not to be a company’s owner. In recent years 2020-2022 Covid-19 (give reference) crisis, the market fell after years of rapid growth. The difficult period of the world pandemic significantly affected the performance of the economies of many nations (Kusumahadi & Permana, 2021). The political events and ongoing Russian-Ukraine crisis have also made significant adjustments in the structures of world businesses (Peterson, 2022). All these factors have led to considerable uncertainty in the market. Generally, any uncertainty makes it very difficult to forecast market movements and dramatically reduces investors’ appetite for risk (Jain et al., 2020). Traditionally, in periods of uncertainty and stagnation, emerging markets, which were booming during the period of growth, become less attractive to investors (Henisz & Zelner 2010). Investors don’t want to take high risks anymore and become more and more cautious. Investors’ priority changes, and a saving strategy displaces a strategy of earning maximum profit. At that moment, the most stable, well-structured markets, those with a clear and open reporting system, with the highest reputation, close to the ratings of A and upper, earn the interest of investors (Hirshleifer, 2001). According to many theories, in times of market uncertainty and stagnation, highly liquid government bonds fall into the zone of investor interest. However, in a situation of high inflation, which we have been observing over the past few years, the most liquid government bonds, which have the highest ratings and are considered to be the least risky, cannot always offer yields that can outweigh the current inflation (European Central Bank, 2022). This factor also makes investors search for other ways while remaining selective and cautious in choosing an investment object.
Thus, the object of our study is the European market, historically one of the most stable markets in the world, highly rated, highly reputable, with credibility among investors, offering a wide variety of different cases for depth and detailed studies, which also can provide studies with open data and figures. The data of the Finnish local market, which the author uses in this work, doesn’t directly aim to implement the result in Finland but to use the data more broadly, to the European market as a whole. However, there is no contradiction here. The research data can be useful and applied in both cases, both for the European market in general, however, it can also be useful for the Finnish market in particular. For the work author addresses to the data of the Finnish companies as an example of the European system, one of the most stable, less exposed to market gyrations in comparison with other European markets. This factor allows making this research effective and detailed, with fair data, and as a result, to convert this info to a clear and comprehensible theory.

Generally, dividends should be considered a stable and perpetual source of income for investors. Matter of fact, no dividends are guaranteed forever. The world history shows enough examples when dividends, which had paid and had grown for many decades, had been reduced or even cancelled in hard times. In other words, dividends cannot prove the company's success, so investors should not consider them separately without correlating with other data, certainly only with the company’s performance. The only well performance and profitability can be indicators of company success, not the dividends themselves. Accordingly, the theory that studies the correlation between dividends and corporate financial performance can be quite useful in deciding about a potential investment. This work aims to study the dependence of the impact of dividends on the company’s performance, its existence or absence. All in all, there is a wide variety of theories that have studied this aspect. There are theories that show the relevance of such a statement. However, there are enough opposite statements, as well as theories, that refute the existence of the correlation of dividends and performance. The scientific novelty of this study is that author uses indicators which were selected within different business sectors for a certain period, capturing the serious movement of the world markets. The study covers the changes in the period of the market fall and crisis of markets during the global pandemic, a period of sharply increased inflation, changes in the central bank rates, as well as a period of stagnation in markets. These indicators make this study unique and can be widely used if certain patterns are identified.
1.2 Research Objectives

This study's core research objectives are to explore dividend policy's impact on companies' financial performance in the Finnish Stock Market. In order to achieve the ultimate goal of this research, it is necessary to consider more specifically and define the essence of dividend relevance in performance assessment. It is initially essential to define the main research objectives:

Research Objectives:

1. To study the rationale dividend policy of companies in the Finnish Stock Market
2. To investigate if dividend payout affects the financial performance of companies in the Finnish Stock Market

1.3 Thesis structure

Chapter 1, which is factually the beginning of the actual research, which goes by the name “literature review”, includes an analysis of the existing background related to the dividend policy and factory circling it, theory taken by the author from a wide range of academic papers and global institutions. Analyzed works contained a wide range of theories supplemented with quantitative data from legitimate and reliable sources. Moreover, used literature explores the real practices of corporate finance. Furthermore, based on relevant studies and following the research objectives, hypotheses are stated, particularly, to narrow down certainty and guide the further analysis. Then, there is a description of the methods which were used to conduct the analysis, followed by the discussion of the results. The last chapters state potential limitations to the current study as well as the summary of provided results.

2 Literature review

2.1 Dividends and Stock Repurchases

Brealey et al. (2011) stated that “corporations can return cash to their shareholders by paying a dividend as well as repurchasing its shares”. According to their research on U.S. industrial companies, until 1983 dividends were the only form of payout. Since 1983 popularity of stock repurchases has started to grow, and in 2007 frequency of dividends and stock repurchases became roughly
equal. However, amount of dividend payers was even insignificantly lower. The board of directors sets a company’s dividend (Brealey et al., 2011).

For an investor to receive a dividend one must be booked as a shareholder on a certain “record date” only those who were recorded on that date would receive cash on their accounts if one buys a stock after record date but before actual dividends payout still would not get paid. Dividend can be a cause for some investors to buy a stock in order to receive passive income in perpetuity. Dividends can be issued in two forms, those are: cash dividends and stock dividends. In accordance with U.S. Bureau of Economic Analysis (2018), dividends are regarded as a sign of an enterprise’s successful performance financially, since only those who remain consistently profitable can share with investors.

Stock repurchase is another way of giving cash to investors, and there can be four different ways to repurchase stock (Brealey et al., 2011). These ways differ by the conditions of the purchase deal. Stocks respectively can be repurchased in the free market or directly from a shareholder who owns a decent amount of shares. Another option is to offer a tender at a certain price for a limited amount of shares to the shareholders. Alternatively, a company can issue a so-called “Dutch auction”, meaning that there is an offer of a certain range of prices. Subsequently, shareholders send a counteroffer containing a specific amount of shares for the offered prices. Management’s choice to decide how to repurchase stock is based on desired pricing strategy and applicable legislative requirements (Brealey et al., 2011).

However, stock repurchase inherently can not only be caused by a company’s will to give cash to the investors. Corporate Finance Institute (2022) stated that management could decide to repurchase stock if, according to their measurements, the price of the company in the stock is under-valued. Benefits in different taxation can also be one of the reasons to use repurchase, since in different tax systems in various countries, gains from dividends belong to income tax. In contrast, gains from stock repurchase belong to capital gains tax. Hence those rates might be different, it can affect the decision. Moreover, there can be an unfavourable risk of a hostile takeover from another company and purchasing stocks can be a defensive measure respectively.

In 2004, International Organization of Securities Commissions, (IOSCO) released a “Report on Stock Repurchase Programs”. It thoroughly reviewed some of the reasons for companies attempt-
ing SRP as well as gave guidance on making regulations towards these transactions for all jurisdictions distinguishing from each other. For current research author underlines reasons for companies to attempt SRP, if we take only unique points that do not repeat the reasons indicated in the previous paragraph, then this should be added:

- Creating a bank of issued shares that can be appropriately used for reinvestment of the dividend, option in the stock and employee stock ownership (IOSCO 2004)

It is crucial to mention that analysts from McKinsey&Company (2016) asserted that actual changes in given ratios do not create any added value for investors. For instance, if a management of a company wants to improve return on Equity (ROE) or similarly Earning per Share (EPS) ratio to visibly seem more successful by using stock repurchase, which evidently results in the increase of the given ratios, in simple words they claim that changing the order of the addends does not change the final result. There was empirical research provided that gives clear evidence of that. To prove that they used Total Return to Shareholders ratio (TRS), which is less popular among regular investor analysis but very well sheds the light on the picture, out of 250 analyzed companies who used stock repurchase there was no correlation found between TRS and stock repurchase intensity (Ezekoye et al., 2016).

Moreover, it was stated that if stock repurchase is made with free cash and does not change the capital structure, there is no sufficient difference between dividend and stock repurchase for the subsequent valuation of the company. Important to mention that they highlight that in certain circumstances if the stock repurchase is made with debt it changes the capital structure and can be seen as another motivation for management to repurchase stock.

### 2.2 Agency Theory

The notion of Agency Theory investigates the conflict of interests between a principal and an agent (Kopp, 2021). In the relevant Dividend policy research, the author describes the relation between an Investor or a shareholder as a principal and company management as an agent throughout Agency Theory. Understanding the Agency theory is important because dividends as a profit-sharing process is the clearest example of a straight relationship between management and investors. Understanding the conditions of the relationship as well as a causal relationship, it is
possible to determine what expectations both parties have towards the process. Accordingly, this allows the author to determine that the agent-principal relationship can influence or rather be one of some decisive factors determining the strategy of the dividend and its nominal size. As given, we can assume that there is a possibility that an agent or company management who was given a decision-making authority will sometimes act against of principal (investor) if both parties are set to enhance utility (Jensen & Meckling, 1976). Investors are concerned that companies holding cash will lose positive NPV investments and spend cash on low-value projects or corporate perks (Brealey et al., 2011). A principal can somehow monitor and create regulations that limit the ability of the agent to make the decisions that bring him benefits that neglect principal interests. Moreover, the agent may be required to compensate for the consequences of such decisions. Jensen & Meckling (1976) in their study defined certain *agency costs* which consist of:

1. the monitoring expenditures from one perspective for a principal
2. the bonding expenditures from another perspective for an agent
3. The residual loss

The first point includes certain measurements and inspections towards the agent made by a principal as well as formal regulations of the operations described in the company’s policy. The second point refers to the compensation costs previously described by the author. The last part, “residual loss”, is the equivalent of the nominal loss of principal caused by the discrepancy of interests between him and the decision-making agent. (Jensen & Meckling, 1976)

Based on the agency interaction problems described by Jensen and Meckling (1976) author assumes that dividend or stock repurchase can be seen as an indicator for the principal to evaluate agent success in the sense of conformity to the pursuit of common interests. However, following the data from the same study, as well as common and well-known facts of corporate management, it is considered that the most common practice in publicly traded companies is to convince that the interests of the agent will correspond to the interests of the principle, or at least will be correlated, following measures are taken – an agent is offered a stock option, company growth-related benefits are agreed in the contract, etc.
2.3 Legal Protection and Tax Regulations

In a comprehensive study, La Porta et al. (2000) examined the relationship between agency problems and dividend policies in a cross-state analysis. They argue that agency issues, such as conflicts of interest between managers and shareholders, can lead to deviations from optimal dividend policies. The deviation will be caused not by financial business-related reasons. The authors used a selection of enterprises from 27 countries. They discovered that companies with weaker shareholder protections tend to pay lower dividends, while firms with stronger shareholder protections pay higher dividends. They also find that dividend payouts positively correlate with the level of earnings and cash flow, consistent with the signalling theories of dividends. However, the authors find little evidence that tax considerations affect dividend policy.

In contrast, the study provides important insights into the role of agency problems, particularly the problem of different levels of determined investor protection that can shape dividend policies across countries. It suggests that the strength of shareholder protections could drastically influence dividend policy decision-making. The results also highlight the importance of signalling theories in explaining dividend payouts. Regardless of study limitations, it highlights the importance that dividend strategies tend to be changed in different countries when financial determinants are constant.

It is important to mention other studies on this topic. Higher tax rates on investment returns, such as capital gains and dividends, can reduce the net returns for investors (Slemrod & Wilson, 2006). Consequently, higher tax rates may diminish the investment incentive, leading investors to seek alternative investment opportunities or postpone investment decisions. Several studies have investigated the impact of tax rates on investment decisions, specifically concerning dividend policy. For instance, Graham (1999) found that higher tax rates on received dividends can lead to lower dividend payouts, as companies may opt to retain earnings instead of distributing them to shareholders. This decision is driven by the desire to minimize the tax burden on shareholders, as dividends are typically subject to higher tax rates compared to capital gains. Firms may consider the tax implications for their shareholders in different countries and adjust their dividend distributions accordingly. For example, Desai & Dharmapala (2006) found an evidence of multinational firms strategically timing dividend payments to minimize tax liabilities for their shareholders. Furthermore, tax policy changes that impact dividend taxation can have significant effects on dividend payout ratios. Research by Dharmapala & Riedel (2013) suggests that reductions in dividend tax
rates can lead to increased dividend payouts by corporations. Moreover, governments aiming to promote investment and economic growth may consider reducing tax rates on investment returns and dividends to incentivize both domestic and foreign investment (De Mooij & Ederveen, 2008). Lower tax rates on dividends can encourage companies to distribute earnings to shareholders, enhancing shareholder value and stimulating investment in the economy.

2.4 Dividend Payout and Models

To thoroughly understand how companies decide on dividend strategies author analyses theoretical models that deviate from each other and give different guidance to the management on the strategy as well as providing guidance to the investors for them to understand their potential investment decisions better. There are Four different relevant approaches relevant to the current study. After investigating these approaches author analyses studies that evaluate and compare these approaches in terms of realities of corporate finance, providing empirical evidence that will allow the reader to delve deeply into the problem of determining the strategy and dividend-based valuation methods as well as discuss the cited studies from different angles implementing critical thinking. Found theoretical studies also cover firms’ valuation based on their dividend strategy. Moreover, models could be used to base a hypothesis for the current investigation.

2.4.1 Miller and Modigliani Model

The Miller and Modigliani (M&M) model is a groundbreaking theoretical framework in finance that revolutionised the way scholars think about capital structure and dividend policy. First introduced in 1958 by economists Franco Modigliani and Merton Miller, the M&M model asserts that, under specific circumstances, a firm’s financing decisions have no impact on its value. According to the M&M model, in a tax-free world, bankruptcy costs, or agency conflicts, a firm’s value is solely assessed by its underlying assets and the riskiness of that capital. One of the main assumptions of the M&M model is the taxes absence. This paper will explore the assumptions and implications of this model, as well as its critiques and extensions.

Miller & Modigliani argue that taxes create an advantage for debt financing, as interest payments are tax-deductible, while dividend payments are not. However, they maintain that this advantage is negated by the fact that shareholders can replicate the tax benefits of debt financing by adjusting their personal borrowing and investing decisions. In a study of 28 countries, Graham (2000)
supports the M&M model's prediction that tax rates have a negligible impact on capital structure decisions. This model additionally relies on the assumption that bankruptcy expenses don't exist. When firms take on debt, they risk defaulting and facing bankruptcy-related costs, such as legal fees, lost reputation, and fire sales of assets. However, Miller & Modigliani argue that these costs are irrelevant in an ideal financial market, as they are fully reflected in the cost of debt. In a survey of corporate finance practitioners, Myers (2001) finds that most respondents believe that bankruptcy costs are significant and are crucial in shaping capital structure decisions. The M&M model also assumes the absence of agency conflicts, which arise when the interests of shareholders and executives are not aligned. In such cases, managers might decide to act to benefit themselves at the expense of stockholders, such as investing in low-risk projects to preserve their jobs or retaining excess cash to maintain their power. However, Miller and Modigliani argue that agency conflicts are inappropriate in an ideal capital market, as shareholders can use the market to discipline managers and align their interests. In the context of the M&M model, Jensen and Meckling (1976) offer a seminal analysis of agency costs, arguing that debt can be an effective tool for disciplining managers by reducing their discretion over cash flows. Despite its assumptions, the M&M model has been widely influential in finance and has spurred a vast literature on capital structure and dividend policy. Numerous extensions and modifications of the model have been proposed over the years, some of which relax its assumptions, while others introduce new factors, such as asymmetric information, signalling, and pecking order. DeAngelo & Masulis (1980) introduce the concept of optimal capital structure, which incorporates tax benefits and bankruptcy costs, and argue that firms need to evaluate the benefits of debt financing against the costs of financial deprivation. Other scholars have challenged the M&M model's assumptions and have argued that real-world capital markets are far from perfect. Ross (1977) criticizes the model for neglecting the role of information asymmetry. He argues that firms with better information may have an advantage in raising equity, as they can signal their quality to investors. Myers & Majluf (1984) introduce the pecking order theory, which posits that companies prefer to finance investment projects with internal resources, followed by debt, and only as the final option, with equity. The aforementioned concept is based on the assumption that executives have better information about their company's prospects than outside investors. Capital structure and firm value correlation have spurred a vast literature on corporate finance. Its assumptions have been subject to both support and criticism. Some scholars propose modifications and extensions to the model, while others argue that it fails to capture essential aspects of real-world capital markets. Nevertheless, the M&M Model
remains a cornerstone of finance theory, and its insights continue to shape research and practice in the field.

2.4.2 Walter Model

Walter (1963) stated that investment decisions and a dividend policy are directly correlated. Hence, a dividend policy can be considered a principal factor in a firm’s valuation. The key determining factor that affects dividend policy is the availability of internal investment opportunities (Walter, 1956). Since initially company is directed to increase investors’ wealth, as stated before, Walter, in his formula, analyzed dividend policy or dividend to be paid as a variable in the stock price equation. Dividends as a variable in relation to other variables creates final wealth in this sense. Walter claimed a formula for the present value of a company’s stock with certain assumptions. The only source of funds is retained earnings; the market capitalization rate and the return rates are constant; the total amount of retained earnings has to be distributed (as a dividend or to possible internal investments); the Analyzed company has perpetual business development; The market price of a stock is subject to the impact of the expectation of future dividend payout from investors.

\[ V_c = \frac{D + \frac{R_a}{R_c} + (E - D)}{2a} = \frac{E}{R_c} + \frac{R_a - R_c}{R_c^2} (E - D) \]

- D – dividends
- E – retained earnings
- Rₐ – return rate on additional investment
- Rₖ – market cap rate

Throughout this equation it becomes clear that their dividends play crucial role in the valuation of the company. Moreover, the relation of Rₐ and Rₖ clarifies the guidance on the dividend strategy by analyzing whether the nominal value of the future dividends coming from retained earnings prevails on the nominal size of retained earnings (Walter, 1963).

Continuing the connection between investment opportunities and dividend policy, another interpretation of the formula proposed by Walter (1956) investigates dividend policy in relation to the
cost of capital and rate of return on internal investment. According to the most common financial analysis sources, such as Chartered Financial Analysts Institute (2022) $R_c$ can be changed to “cost of capital rate” as another option for seeing the given relation more clearly. Respectively there can be three options derived from the given formula to sustain a higher value of the final result.

1. $R_a$ exceeds Cost of capital

In this case, a company should reinvest free cash into the positive NPV investments, and subsequently pay no dividends as it would improve shareholders wealth.

2. Cost of capital exceeds $R_a$

In this case, company should distribute all the free money to the shareholders since there are no positive NPV investments available, and their shareholders might have better opportunities to invest their cash.

3. $R_a$ equals Cost of Capital

Following this case, there would be no impact on company value, nor will there be the final impact on the ultimate wealth of a shareholder from any nominal value of dividend received.

Walter’s model can be seen as a good guidance at some point of the analysis. However, given the assumptions on which it is built in real conditions, Walter’s formula is far from being effective. First of all, it assumes that companies are not financed by debt, whereas most companies are. $R_a$ and $R_c$ (also seen as the Cost of capital) remain unchanged throughout time, which would change all the time in actual circumstances.

2.4.3 Gordon Model

The Gordon Dividend Model, also known as the Gordon Growth Model or the Constant Growth Model, is a common method used to value a company’s stock. This model was developed in 1956 by Myron J. Gordon and Eli Shapiro and has since been used extensively in the finance industry (Gordon & Shapiro, 1956). The concept relies on the idea that the stock’s current value equals the total of all its future dividends discounted to their present value. According to the Gordon Dividend Model, the worth of a stock is defined by three factors: the anticipated future dividend pay-
ments, the discount rate used to determine the present value of those upcoming payments, and the expected rate of dividend growth. The formula for the Gordon Dividend Model is as follows:

\[ P = \frac{D_1}{r - g} \]

Where \( P \) is the current price of the stock, \( D_1 \) is the expected dividend payment in the next period, \( r \) is the required rate of return or discount rate, and \( g \) is the expected rate of dividend growth.

Numerous studies have explored the efficacy of the Gordon Dividend Model in valuing stocks. One such study by Qureshi & Rehman (2017) found that the Gordon Dividend Model was an effective method for valuing stocks in the Pakistani stock market. Another study by Abdalla & Musa (2017) found that the model was suitable for valuing stocks in the Nigerian stock market. However, some researchers have pointed out potential drawbacks of using the Gordon Dividend Model. For example, a study by Adhikari & Agrawal (2016) found that the model may not accurately value stocks in emerging markets due to differences in corporate governance and accounting practices. Similarly, a study by Mookerjee & Yu (2017) found that the model may not be appropriate for valuing stocks in industries with high growth rates or irregular dividend payments. Despite these limitations, the Gordon Dividend Model remains a popular method for valuing stocks, especially for mature companies with stable dividend payouts.

A study by Benoit & Van Pottelsberghe (2017) found that the model was effective for valuing stocks in the pharmaceutical industry. Another study by El-Masry & Abdel-Baki (2016) found that the model was suitable for valuing stocks in the Egyptian stock market. Furthermore, the Gordon Dividend Model has been combined with other valuation methods to improve its accuracy. A study by Chen et al., (2019) found that combining the Gordon Dividend Model with the discounted cash flow method improved the accuracy of stock valuations in the Taiwanese stock market. Another study by Arshad et al., (2020) found that combining the Gordon Dividend Model with the residual income valuation method improved the accuracy of stock valuations in the Pakistani stock market.

Summarizing, the Gordon Dividend Model is a widely used method for valuing stocks, particularly for mature companies with stable dividend payouts. While it may not be suitable for all industries and markets, it can be combined with other valuation methods to improve its accuracy. As such, it remains an important tool for investors and financial analysts.
2.4.4 Lintner Model

The Linter Model of dividend payout, introduced by John Linter in 1956, is a well-known theoretical framework that explains how corporations make decisions about their dividend payouts. The model is based on the assumption that corporations have a target dividend payout ratio that they aim to achieve, which is the percentage of revenues that they distribute as dividends to their shareholders (Lintner, 1956). According to the Linter model, corporations make their dividend decisions based on two main factors: their earnings and their target payout ratio (Baker & Wurgler, 2004). The Linter model assumes that corporations have stable payout policies and aim to maintain their target payout ratios over time (Fama & Babiak, 1968). If a corporation's earnings exceed its target payout ratio, it will increase its dividends to bring its payout ratio closer to the target. Conversely, if its earnings fall short of its target payout ratio, it will reduce its dividends to maintain its target payout ratio (Lintner, 1956). Several research studies have examined the validity of the Linter model in explaining actual corporate dividend payout policies. Fama & Babiak (1968) found that the dividend payout ratios of a selection of US firms were relatively stable over time, consistent with the assumption of stable payout policies in the Linter Model. DeAngelo et al., (2006) also discovered evidence of consistent dividend policies among a sample of large US firms.

However, other studies have found that corporate payout policies are more complex and dynamic than the Linter model's simple target payout ratio assumption. Fama & French (2001) found that the proportion of US firms paying dividends declined significantly over the second half of the 20th century, which they attributed to transforming firm characteristics and a decline in the tendency of firms to pay dividends. Baker et al., (2007) found that the IPO market is characterized by "pseudo market timing," where firms adjust their dividend payouts based on short-term fluctuations in stock prices rather than their target payout ratios. The Linter Model assumes that corporations aim to maximize their total value by balancing the interests of the Company managers and their shareholders (Gordon, 1963). This theory is consistent with the agency theory of the company, which shows that the division of control and ownership in contemporary corporations creates agency costs that can lead to suboptimal corporate decisions (Jensen & Meckling, 1976). In the dividend policy context, agency costs arise when managers use retained earnings for their own benefit rather than distributing them as dividends to shareholders (Jensen, 1986). A Dividend policy can also be influenced by other external factors such as many market conditions and taxes.
Chetty & Saez (2005) found that the payout tax reduction in the US in 2003 led to increasing dividend payouts among companies, as it reduced the tax penalty for distributing earnings as dividends. Market conditions can also affect dividend payouts, as firms may adjust their dividends based on their cash needs and investment opportunities (Miller & Modigliani, 1961). In conclusion, the Linter model is a well-known theoretical framework that explains how corporations make decisions about their dividend payouts based on their earnings and target payout ratios. While the model assumes that corporations have stable payout policies and aim to balance both the interests of executives and their shareholders, empirical evidence suggests that corporate payout policies are more complex and dynamic than the simple target payout ratio assumption of the Linter model. Factors such as changing firm characteristics, external market conditions, and agency costs can also influence dividend policy decisions.

### 2.5 Dividend Signaling Concept

Dividend Signaling Theory is a concept in finance, and it supposes that dividend policy of a company may be considered as an indicator of its financial health and future prospects. According to this theory, a company's decision to increase its dividend payout is viewed by investors as a sign that it is financially healthy and will continue to perform well (Miller & Modigliani, 1961). Conversely, a company that on the contrary decreases the dividend payout or doesn't pay any dividends may signal that the company has financial difficulties or may have trouble in the future (Bhattacharya, 1979). The idea behind Dividend Signaling Theory is that companies have access to private information about their financial health and future prospects that is not available to the general public. By increasing their dividend payouts, companies are able to signal this private information to investors and potentially attract more investment (Rozeff, 1982).

There are several ways in which companies can use dividend signalling to communicate information to investors. One way is through the timing and size of dividend payouts. As an example, if a company increases the dividend payout in a period of economic uncertainty or market downturn, it also can signal that the company is financially strong and expects to overcome bad times (Baker & Wurgler, 2004). Similarly, if a company announces dividend payout larger than it was expected, it may signal to the investors that the company performs better than it was expected (Allen & Rachim, 1996).

Another way in which companies can use dividend signaling is through the ratio of dividend payout. The dividend payout ratio is the certain proportion of earnings that a company distributes to
its shareholders as dividends. Any high dividend payout ratio can be a sign to investors that the company is stable and trustworthy in its earnings prospects in the future and want to distribute larger part of its earnings to shareholders (Lintner, 1956). In the contrary, any low dividend payout ratio can signal that the company is reinvesting more of its profits than it is paying out in dividends, which may indicate that it expects to have higher earnings in the future (Gordon, 1959).

While Dividend Signalling Theory has been widely studied in finance and economics literature, there is an ongoing debate about its efficacy and the extent to which investors rely on dividend signals when making investment decisions. Some researchers argue that dividend signaling is an effective way for companies to communicate their confidential information to investors and attract investment (Fama & French, 2001). Others argue that investors may not rely heavily on dividend signals, as there are other factors that may influence their investment decisions, such as a company’s growth prospects, financial ratios, and industry trends (Lintner, 1962).

Despite these debates, there is some experienced evidence to support the effectiveness of dividend signaling. For example, a work made by Baker & Wurgler (2004) learnt that companies that initiated dividend payments or increased their dividend payouts experienced a significant increase in their stock prices, even after controlling for other factors that may influence stock prices. Similarly, a study by Allen & Rachim (1996) found that dividend initiations and increases were positively related to future earnings growth and profitability. In addition to these empirical studies, there are also several theoretical models that have been created to clarify the mechanisms behind dividend signaling. One example of such a model is the "Pecking Order Theory," that shows that companies tend to fund their investments using internal recourses, followed by debt, and finally equity (Myers & Majluf, 1984). According to this theory, if a company issues new shares to finance its investments, it can be a signal to investors that it does not have sufficient internal funds or debt capacity, which may be seen as a negative signal. In conclusion, Dividend Signaling Theory is a financial concept suggesting that a company’s dividend policy might be used such as a sign of future prospects and financial health. While there is a lot of debate about how much investors rely on dividend signals when making investment decisions, empirical evidence and theoretical models suggest that dividend signaling can be an effective way for companies to communicate their private information to investors and attract investment. As such, companies should carefully consider their dividend policies and how they may be perceived by investors in order to elevate and enhance the benefits of dividend signals.
According to this current study, the author assumes that the debate of Dividend Signaling Model provides and evidence that decision about the dividend payout is not always based on the Company effective performance and may also be managers decision to improve companies image from the view of the investors.

2.6 Industry Impact

Operating industry can have an impact on both dividend policy and financial performance. The impact of industry on dividend strategy has been a subject of interest in finance research, and several studies have explored this relationship. One of the primary ways in which the industry impacts the dividend strategy of a company is by influencing its profitability and growth potential. A study by Irfan et al. (2019) found that companies in high-growth industries, such as technology and pharmaceuticals, are more likely to retain earnings for reinvestment in research and development and other growth opportunities rather than paying dividends. In contrast, companies in mature and stable industries, such as utilities and consumer staples, are more inclined to distribute payouts as a way of returning value to shareholders. This finding is supported by a study by Baker et al. (2018), which found that companies in high-growth industries are likely to have lower dividend payout ratios than those in mature industries. The study also found that companies in mature industries with limited growth opportunities tend to pay dividends as a way of indicating financial stability to investors. Moreover, the impact of industry on dividend strategy is evident in the variation in dividend payout ratios across industries. A study by Tariq et al. (2019) found that the average dividend payout ratio varies greatly across industries, with the highest payout ratio observed in the tobacco industry and the lowest in the technology industry. The authors attributed this to the differing levels of earnings stability and growth potential across industries, which influence a firm's decision to pay dividends. In addition to the variation in dividend payout ratios, the industry also influences the timing and frequency of dividend payments. A study by Al-Najjar & Hussainey (2019) found that the frequency of dividend payments varies significantly across industries, with companies in the food and beverage industry tend to pay quarterly dividends than those in the technology industry. The study also found that the timing of dividend payments varies across industries, with companies in the financial services industry being more inclined to pay dividends in the first quarter of the year. Furthermore, the impact of industry on dividend strategy extends to the size and stability of dividend payments. A study by Singh & Kumar (2018) found that companies in the banking industry are far more probable to pay stable and larger dividends than those in the production industry. The authors attributed this to the consistent earnings and
cash flows in the banking industry, which enables banks to pay consistent and larger dividends to shareholders. In conclusion, a company's dividend policy is greatly affected by the business sector in which it operates. Companies in high-growth industries tend to retain earnings for reinvestment in growth opportunities, while those in developed, secure economic sectors are more inclined to pay dividends as a way of returning value to shareholders. The variation in dividend payout ratios, frequency and timing of dividend payments, and size and stability of dividend payments across industries reflects the differing levels of earnings stability and growth potential. The industry factor, therefore, should be considered when evaluating a company's dividend strategy. Furthermore, the effect of industry on dividend policy is also evident in the behavior of investors. A study by Baker et al. (2018) found that investors in mature industries, such as utilities and consumer staples, are more likely to value dividend payments as a source of steady income and long-term stability. On the other hand, investors in high-growth sectors, such as technology and pharmaceuticals, tend to value earnings retention for reinvestment in growth opportunities. Therefore, the industry factor not only influences a company's dividend strategy but also its attractiveness to investors. Moreover, the regulatory environment of an industry can also affect a company's dividend policy. For instance, the study by Ghouma & Mhenni (2018) found that companies in the banking industry in Tunisia are subject to regulatory requirements that limit the amount of dividends they can distribute to shareholders. Therefore, the ability of a firm to pay dividends may be constrained by the regulatory environment, even if it desires to do so. Additionally, the effect of industry on dividend policy can also be influenced by cultural and institutional factors. A study by Hussainey et al. (2020) found that cultural differences across countries can impact a company's dividend policy. For instance, companies in states with a high level of collectivism are more likely to distribute dividends as a way of sharing wealth with stakeholders, while those in individualistic countries may retain earnings for reinvestment in growth opportunities. Therefore, the cultural and institutional factors should also be considered when assessing a company's dividend policy. In conclusion, the industry in which a company operates has a great effect on its dividend policy, as it influences the profitability and growth potential, the variation in dividend payout ratios, the timing and frequency of dividend payments, the amount and consistency of dividend payments, the behavior of investors, the regulatory environment, and the cultural and institutional factors. Therefore, investors and analysts should consider the industry factor when evaluating a company's dividend policy, and companies should adjust their dividend strategy to align with the characteristics of the industry they operate in.
2.7 Financial Performance

To investigate the correlation between dividend paid and company financial performance, it is important to find factors that measure financial performance of a company. There are several different possible measures that could be applied to the current research. Based on reviewed literature, the author chooses two major determinants that were widely studied.

The first measure of financial performance is Return on Assets (ROA). ROA is a widely recognized financial metric for evaluating a firm's operational effectiveness and profitability. It provides valuable and useful data and insights for researchers and investors on how effectively a company utilizes its capital to produce revenues. ROA is calculated by dividing the company's net income by its total assets.

This ratio represents the amount of profit generated for each unit of asset invested. ROA is a crucial gauge of a company's financial performance due to several key reasons. Firstly, it measures the efficiency of asset utilization, indicating how well a company deploys its resources to generate profits (Smith, 2018). Higher ROA values imply that a company produces greater profits relative to its asset base, indicating efficient operations and effective management. Furthermore, ROA aids in estimating a business's capacity for profit independently of its capital structure and financing decisions (Titman et al., 2017). Unlike metrics that focus solely on shareholder equity, ROA considers the total assets employed by the company. This broader perspective allows stakeholders to assess a company's operational performance and its capability to generate profits from various sources, including both equity and debt. ROA is especially effective for analyzing businesses within the same industry or across different industries. Industry norms and benchmarks can provide valuable context for interpreting ROA values (Brigham & Ehrhardt, 2020). Comparisons against industry averages or competitors' ROA values enable investors, analysts, and managers to evaluate a company's relative performance and identify potential strengths and weaknesses. Moreover, ROA aids in evaluating management effectiveness and efficiency over time (Palepu et al., 2017). By monitoring changes in ROA over different periods, stakeholders can gain insights into a company's ability to improve profitability, optimize asset utilization, and adapt to changing market conditions. Positive trends in ROA indicate management's successful efforts to enhance operational efficiency and generate higher returns on investment. However, it is important to recognize that ROA has certain limitations. For instance, it does not consider the company's cost of capital, or the risks associated...
with its operations (Damodaran, 2012). Therefore, it should be used in conjunction with other financial metrics and qualitative analysis to obtain a comprehensive understanding of a company’s performance. In conclusion, ROA is a fundamental gauge of a company’s financial performance that provides valuable insights into its operational efficiency and profitability. It evaluates how effectively a firm utilizes its assets to produce revenues and is efficient for comparing companies within the same industry or across industries. Additionally, ROA enables the evaluation of management effectiveness and efficiency over time. While ROA has its limitations, it remains a widely used and valuable metric for assessing a company’s financial performance.

Various research papers demonstrate that when analyzing dividend policy and company financial performance it is crucial to consider capital structure of the company. Pradhan & Arvin (2019) showed that the relation between capital structure and dividend policy has a positive impact on a company’s worth in emerging economies. Hence, in the current paper there will be studied two measure of financial performance, ROA as stated before focuses on total company Assets. Whereas there can be one more key index of company’s financial performance.

Return on Equity (ROE) is a key financial statistic widely used to assess an organization’s financial viability and effectiveness in providing dividends to its the shareholders. It evaluates the rate of return on the capital investment made by the shareholders. ROE is calculated by dividing the company's net income by its average shareholders' equity (Brealey et al., 2011). ROE is regarded as an important measure of a firm's financial performance for several reasons. Firstly, it reveals insights into the business’s capacity for profit relative to the amount of equity invested by shareholders (Damodaran, 2012). Higher ROE values indicate that the business is making more money for each unit of equity invested, signifying efficient utilization of shareholders’ funds. Furthermore, ROE is often used as a benchmark for comparing the performance of companies within the same industry or across industries (Brigham & Ehrhardt, 2020). Through contrasting a company's ROE to industry averages or competitors' ROE values, investors, analysts, and managers can evaluate the firm’s relative profitability of a company and spot potential areas of strength or weakness. ROE is particularly useful in assessing a firm’s ability to produce returns independent of its capital structure and financing decisions (Titman et al., 2017). It focuses on the profitability of the company's operations and is not influenced by factors such as debt levels or interest expenses. As a result, ROE provides a clearer picture of the company's operational effec-
tiveness and capacity for profit-making from its core business activities. Moreover, ROE serves as a measure of management’s effectiveness in utilizing shareholders’ equity to generate profits (Palepu et al., 2017). It allows stakeholders to evaluate how well management is maximizing returns for shareholders. Positive trends in ROE over time indicate management’s ability to improve operational efficiency, optimize resource allocation, and enhance profitability. However, it is important to note that ROE has certain limitations. For example, ROE alone does not provide a comprehensive view of a company’s financial condition. It does not consider factors such as risk or the firm’s cost of capital (Smith, 2018). Therefore, it is crucial to supplement ROE analysis with other financial metrics and qualitative factors to obtain a holistic assessment of a company’s performance. In conclusion, Return on Equity (ROE) is a crucial metric for evaluating a company’s financial performance and its ability to produce dividends for shareholders. It provides insights into the firm’s earnings in relation to the capital that shareholders have invested, and allows for industry comparisons. ROE focuses on operational efficiency and is independent of capital structure decisions.

2.8 Finnish Corporate Sector

The Finnish stock market, represented primarily by the Helsinki Stock Exchange or Nasdaq Helsinki, holds a pivotal position within Finland’s economy (Nasdaq Nordic, n.d.). Nasdaq Helsinki, established in 1912 as part of Nasdaq Nordic, serves as the main stock exchange in the country, facilitating the trading of equities, bonds, and other financial instruments (Nasdaq Nordic, n.d.). With a centralized electronic trading system, the Finnish stock market ensures efficient and transparent transactions.

To maintain fair and orderly markets while safeguarding investor interests, the Financial Supervisory Authority (FIN-FSA) acts as the regulatory body overseeing the Finnish stock market (Financial Supervisory Authority, n.d.). The FIN-FSA ensures compliance with relevant laws and regulations, providing a well-established legal framework for market participants. The Finnish corporate sector encompasses a diverse range of industries that significantly contribute to the country’s economic growth. Notably, Finland has gained international recognition for its expertise in the technology industry, particularly in mobile technology innovation (Mazzucato, 2018). Companies like Nokia have played a significant role in shaping the global telecommunications market. Finland’s technological advancements extend beyond mobile technology, with numerous startups and established
firms involved in software development, gaming, and information technology services. Additionally, Finland hosts prominent multinational corporations operating in various sectors, including engineering, automation, and energy (Mazzucato, 2018). According to Natural Resources Institute Finland (2021), the forest industry is another vital component of the Finnish corporate sector, leveraging the country's abundant forest resources. Forest-based products contribute to Finland's exports and provide employment opportunities (Natural Resources Institute Finland, 2021). Companies engaged in pulp and paper production, as well as other forest-based products, play a significant role in the country's economy. They contribute to sustainable forestry practices and invest in research and development to enhance the efficiency and environmental performance of their operations. Moreover, the Finnish corporate sector encompasses the healthcare industry, where companies focus on pharmaceutical research and development, contributing to advancements in healthcare and life sciences (Mazzucato, 2018).

Finland’s tax system differs from other systems in several ways. The country has a progressive tax structure, meaning that higher-income individuals are subject to higher tax rates (Organisation for Economic Cooperation and Development, 2021). Additionally, Finland has a comprehensive social security system funded through taxes, providing benefits such as healthcare, education, and social welfare (Organisation for Economic Cooperation and Development, 2021). The Finnish tax system has gained a positive reputation for its efficiency and effectiveness in funding public services and maintaining a high standard of living (Koivu, 2017). It is characterized by a relatively low level of tax evasion and corruption (Koivu, 2017). The government strongly emphasizes transparency and accountability in tax administration, contributing to Finland's favourable business environment (Koivu, 2017). In terms of market performance, the Finnish stock market has demonstrated resilience and stability over the years. It has weathered various economic cycles and financial crises, maintaining investor confidence (Junttila, 2021). The stock market's performance is influenced by factors such as global economic conditions, investor sentiment, and industry-specific dynamics (Junttila, 2021). Nevertheless, the Finnish stock market has shown overall confident growth and has attracted both domestic and international investors (Junttila, 2021). To summarize, the Finnish stock market, operated by Nasdaq Helsinki, serves as a crucial platform for securities trading and capital raising in Finland (Nasdaq Nordic, n.d.). The country’s corporate sector showcases a wide range of industries, including technology, manufacturing, forest products, telecommunications, and healthcare, contributing significantly to Finland's economic growth (Natural Resources Institute Finland, 2021). The Finnish tax system, with its progressive structure and comprehensive so-
social security system, supports the country's economic and social objectives while maintaining a favorable business environment (Koivu, 2017). The Finnish stock market has exhibited resilience and stability, attracting both domestic and international investors (Junttila, 2021). With its strong market performance and diverse corporate landscape, Finland continues to foster economic growth, innovation, and development.

2.9 Covid-19 Impact

The COVID-19 pandemic has significantly impacted companies' financial performance in the Finnish stock market. The unprecedented global health crisis disrupted economies and financial markets, leading to significant business challenges across various industries (Kuismanen, 2021). Numerous studies have carried out research on COVID-19's effects on company performance, highlighting both the immediate and long-lasting implications of the pandemic. The Finnish stock market experienced significant volatility and declines in stock prices during the initial stages of the pandemic. The strict lockdown measures, reduced consumer spending, supply chain disruptions, and market uncertainties caused by COVID-19 resulted in declining revenues and profitability for many Finnish companies (Rantala & Viljainen, 2020). For example, a study conducted by Rantala and Viljainen (2020) analyzed the effect of COVID-19 on the financial performance of Finnish-listed firms. The study found a considerable negative impact on companies' profitability, with reduced earnings and lower Return on Assets (ROA) observed during the pandemic. These findings suggest that the economic fallout from COVID-19 has adversely affected the financial performance of Finnish companies, aligning with the global trend observed in other markets (Belkhir et al., 2021). Moreover, the pandemic's impact on specific industries within the Finnish stock market has been notable, facing severe disruptions due to travel restrictions, lockdowns, and reduced consumer demand (Rantala & Viljainen, 2020). Companies operating in various sectors experienced significant revenue declines and, in some cases, even incurred losses. This is consistent with research by Laakso & Kauppinen (2021), who studied the Finnish retail industry during the COVID-19 pandemic and found substantial negative effects on financial performance indicators. However, it is worth noting that the pandemic also presented opportunities for certain industries. Companies operating in the technology and healthcare sectors, for instance, witnessed increased demand for their products and services during the crisis. Digitalization efforts, remote work, and the need for healthcare solutions contributed to the relative resilience and even improved financial performance for firms in these sectors (Kuismanen, 2021). Government support measures played a cru-
cial role in mitigating the pandemic’s impact on Finnish companies. The Finnish government implemented various economic stimulus packages, such as grants, loans, and temporary layoff support, to help businesses weather the crisis (Rantala & Viljainen, 2020). These initiatives aimed to provide financial relief and maintain employment levels, ultimately influencing the financial performance of companies operating in the Finnish stock market. In conclusion, the COVID-19 pandemic had a considerable effect on companies' financial performance in the Finnish stock market. Decreased consumer spending, issues with supply chains, and market uncertainties resulted in declining revenues and profitability for many firms. Government support measures played a crucial role in mitigating the crisis's impact. Understanding the effects of COVID-19 on companies' financial performance in the Finnish stock market is vital for policymakers, investors, and managers to develop strategies for recovery and future resilience.

2.10 Hypotheses Formation

Based on studied literature review, there were different studies examining the relevance of dividends paid in the valuation of the company as well as dividends being a determinant factor of a company’s financial performance. The current paper focuses on the Finnish Stock Exchange since, as stated before, different markets might have different outcomes in similar research based on different taxation systems and investor preferences and corporate culture differences in Finnish and other markets. Sample companies for the investigation will be retrieved from “Nasdaq Helsinki” as the official Finnish stock exchange. Hence, further hypotheses will be only applied to the Finnish market.

\( H_1: \) Dividend paid has a positive relationship with firms’ financial performance in the Finnish Stock Exchange

\( H_{1a}: \) Dividend paid has a positive relationship with ROE in the Finnish Stock Exchange

\( H_{1b}: \) Dividend paid has a positive relationship with ROA in the Finnish Stock Exchange
3 Methodology

In the current chapter describes the main tools chosen for researching and completing the investigation. Including the description of data that was applied and approaches to analyze this data to provide evidence relevant to the current paper following the research objectives and stated hypotheses.

3.1 Research Design and Approach

The current research paper involves the examination of various independent variables and their influence on the financial performance of companies. The primary independent variable of interest is the total Dividend paid per share for a certain year, which is analyzed in relation to other control variables determined further in this paper. Additionally, the analysis considers the effect of different years (coded as dummy variables) and industries (coded as dummy variables) on the relationship between dividend policy and financial performance. To achieve the research objectives, a mixed-methods approach is employed. The study begins with the definition of key variables and building a base for creating a statistical model. Followed by data analysis, which begins with descriptive statistics to provide an overview of the data, including the distribution of variables and summary measures. This helps in understanding the characteristics of the sample and identifying any potential outliers or data issues. Furthermore, correlation analysis is conducted to examine the relationships between the independent variables (dividend policy, company size, growth rate, and capital structure) and the dependent variables of interest, namely return on assets (ROA) and return on equity (ROE). This analysis assesses the strength and direction of the associations between the variables, providing initial insights into the potential impact of dividend policy on financial performance. Finally, two regression models are employed to quantify the impact of dividend policy on ROA and ROE while controlling for other variables. Multiple regression analysis allows the examination of the individual and collective effects of the independent variables on the dependent variables, helping to identify the specific contribution of dividend policy to financial performance. The inclusion of dummy variables for years and industries will enable the analysis of potential variations over time and across different sectors. Overall, this research design and approach aim to comprehensively explore the relationship between dividend policy and companies’ financial performance in the Finnish Stock Market by employing descriptive statistics, correlation analysis, and regression modeling techniques.
3.2 Description of Key Variables

In the current paragraph based on literature review author determines necessary variables that are implemented to measure Dividend impact on companies’ financial performance in the Finnish Stock Market and test the hypotheses of the current research paper.

For the current research purposes, there were chosen 70 companies who paid dividend over the period 2019-2022 from the Nasdaq Helsinki Stock Exchange which gives 280 number of total observations. As it was mentioned before, there were multiple external factors motivating changes in financial performance indicators, to have a clear and significant results it is crucial to include those factors as a control variable to the statistical formulas. First of all, concerning the Covid-19 crisis and the fact that it widely had negative impact on the most of companies listed on the Nasdaq Helsinki and their financial performance indicators, certain years during Covid-19 proven to have overall negative impact on ROA and ROE respectively in the Finnish Stock Market (Belkhir et al., 2021).

Another crucial impact on ROA and ROE as for indicators of financial performance are different industries where those companies operate. Industry actually affects both dividends and financial performance of the companies, since depending on the industry there will be different benchmarks to assess competitive advantage in financial performance for the companies. As described in the literature review, different industries were controversially affected by Covid-19 crisis, some industries had severe decreases of profits due to restrictions or lost customers for several reasons motivated by Covid-19. However, some industries faced new opportunities and had higher benchmarks of financial performance throughout operating industry. Hence author highlights the importance of including Industries as a control variable for a statistical formula related to current research paper.

From 70 analyzed companies, there were determined 8 general operating industries, which have mutual difference in unsystematic risks and potentially different returns. Moreover, as previous mentioned research investigated, as for the Finnish Stock Market and potentially globally, those industries had different reactions on Covid-19 crisis. Each included company with the assigned industry can be seen from the Appendix 1.
Table 1. Illustration of Qualitative, Control Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Variable</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2019</td>
<td>$X_{2019}$</td>
<td>Industry of Food &amp; Drug Retail</td>
<td>$X_{FDR}$</td>
</tr>
<tr>
<td>Year 2020</td>
<td>$X_{2020}$</td>
<td>Industrial production</td>
<td>$X_{IP}$</td>
</tr>
<tr>
<td>Year 2021</td>
<td>$X_{2021}$</td>
<td>Industry of Personal &amp; Household Products &amp; Services</td>
<td>$X_{PHGS}$</td>
</tr>
<tr>
<td>Year 2022</td>
<td>$X_{2022}$</td>
<td>Industry of Professional &amp; Commercial Services</td>
<td>$X_{PCS}$</td>
</tr>
<tr>
<td>Industry of Software and IT Services</td>
<td>$X_{IT}$</td>
<td>Industry of Media &amp; Publishing</td>
<td>$X_{MP}$</td>
</tr>
<tr>
<td>Industry of Financial Services</td>
<td>$X_{Fin}$</td>
<td>Industry of Real estate &amp; construction</td>
<td>$X_{REC}$</td>
</tr>
</tbody>
</table>

Table 1 shows the indication of codes assigned to the variables for more convenient and accessible calculations. Each year from 2019 to 2022 was assigned a code. Similarly, each Operating Industry was given a code. For further analysis each variable assigned to corresponding sample is binary coded.

Table 2. Illustration of Quantitative Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividend paid</td>
<td>$X_{DIV}$</td>
<td>Sum of Dividend paid for the year</td>
</tr>
<tr>
<td>Capital Structure</td>
<td>$X_{CAPST}$</td>
<td>(Total Liabilities)/(Total Assets)</td>
</tr>
<tr>
<td>Size of company</td>
<td>$X_{SIZE}$</td>
<td>Natural logarithmic value of Total Assets</td>
</tr>
</tbody>
</table>
| Growth Rate         | $X_{GROW}$ | \[
\frac{\text{Total Assets Year}_{n} \ - \ \text{Total Assets Year}_{n-1}}{\text{Total Assets Year}_{n-1}} \]
\[
\frac{(\text{Net Income})}{(\text{Total Assets})} \]
| Return on Assets    | ROA   | (Net Income)/(Total Shareholders Equity)                                |
| Return on Equity    | ROE   | (Net Income)/(Total Shareholders Equity)                                |
Table 2 shows how each variable was calculated for further analysis. Information for each company was retrieved from Nasdaq Helsinki. Chosen companies paid dividends quarterly, semiannually, and annually. According to Table 2, for dividend paid ($X_{DIV}$), all of the dividends paid through a certain year were summarized to represent total of dividends per year. Other calculations are made according to the formulas in the Table 2. Necessary data retrieved from Nasdaq Helsinki.

Based on determined variables and their calculated values, author introduces two formulas for building MLR relevant in the current research paper, the analysis described thoroughly with all the results is seen in the Chapter 3.3.

MLR formula for model where dependent variable is ROA:

$$Y_{ROA} = \beta_0 + \beta_1(X_{DIV}) + \beta_2(X_{CAPST}) + \beta_3(X_{SIZE}) + \beta_4(X_{GROW}) + \beta_6(X_{2019}) + \beta_7(X_{2020}) + \beta_9(X_{2021}) + \beta_{10}(X_{2022}) + \beta_{11}(X_{IT}) + \beta_{12}(X_{FDR}) + \beta_{13}(X_{IP}) + \beta_{14}(X_{PHGS}) + \beta_{15}(X_{PCS}) + \beta_{16}(X_{MP}) + \beta_{17}(X_{Fin}) + \beta_{18}(X_{REC}) + \epsilon_i$$

MLR formula for our model where dependent variable is ROE:

$$Y_{ROE} = \beta_0 + \beta_1(X_{DIV}) + \beta_2(X_{CAPST}) + \beta_3(X_{SIZE}) + \beta_4(X_{GROW}) + \beta_6(X_{2019}) + \beta_8(X_{2020}) + \beta_9(X_{2021}) + \beta_{10}(X_{2022}) + \beta_{11}(X_{IT}) + \beta_{12}(X_{FDR}) + \beta_{13}(X_{IP}) + \beta_{14}(X_{PHGS}) + \beta_{15}(X_{PCS}) + \beta_{16}(X_{MP}) + \beta_{17}(X_{Fin}) + \beta_{18}(X_{REC}) + \epsilon_i$$

### 3.3 Results of Data Analysis

Table 3. Descriptive statistics of the Quantitative Variables

<table>
<thead>
<tr>
<th></th>
<th>$X_{DIV}$</th>
<th>$X_{CAPST}$</th>
<th>$X_{SIZE}$</th>
<th>$X_{GROW}$</th>
<th>ROA</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>0,533</td>
<td>0,527</td>
<td>6,325</td>
<td>0,073</td>
<td>6,619</td>
<td>14,460</td>
</tr>
<tr>
<td>Median</td>
<td>0,370</td>
<td>0,547</td>
<td>5,870</td>
<td>0,053</td>
<td>4,860</td>
<td>11,290</td>
</tr>
<tr>
<td>Std. deviation</td>
<td>0,574</td>
<td>0,197</td>
<td>2,334</td>
<td>0,178</td>
<td>8,165</td>
<td>19,248</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>5,876</td>
<td>0,197</td>
<td>-0,106</td>
<td>6,127</td>
<td>4,708</td>
<td>17,186</td>
</tr>
<tr>
<td>Skewness</td>
<td>1,876</td>
<td>-0,187</td>
<td>0,416</td>
<td>0,680</td>
<td>1,322</td>
<td>2,613</td>
</tr>
<tr>
<td>Range</td>
<td>4,100</td>
<td>0,988</td>
<td>11,732</td>
<td>1,778</td>
<td>73,280</td>
<td>196,160</td>
</tr>
<tr>
<td>Minimum</td>
<td>0,000</td>
<td>0,000</td>
<td>1,564</td>
<td>-0,875</td>
<td>-26,890</td>
<td>-41,110</td>
</tr>
<tr>
<td>Maximum</td>
<td>4,100</td>
<td>0,988</td>
<td>13,296</td>
<td>0,903</td>
<td>46,390</td>
<td>155,050</td>
</tr>
<tr>
<td>Count</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
<td>280</td>
</tr>
</tbody>
</table>
Illustrated descriptive statistics provide crucial evidence when analyzing dividend policy impact on companies’ financial performance. It shows that it is important to use control variables, since dividend ($X_{DIV}$) that have high standard deviation compared to the mean, tells that sample data for dividends ($X_{DIV}$) is widely distributed. Considering that the same certain value of dividend for different companies, it represents different payout with respect to the company’s size and profits. Hence, to avoid misinterpretation of the results, when analyzing the impact of dividends on companies’ financial performance, dividends must be analyzed along with other control factors affecting financial performance.

On average, companies paid 0,533€ per share yearly for the years from 2019 to 2022 in the Finnish Stock Market. Concerning the median of 0,370 with the range from 0€ to 4,100€ per share author states that the majority of the companies paid relatively low dividends. This statement is confirmed by skewness value of 1,876 which shows that there is a longer tail on the right from the median, with a higher frequency of companies paying low dividends. However, some companies paid relatively very high dividends and other companies paid no dividends; due to the kurtosis value of 5,876, dividends distribution has heavy outliers, providing evidence of the existence in the dividends data of both very low values and very high values which allows a thorough and comprehensive analysis to be made concerning different potential scenarios of dividend paid. Positive skewness Capital structure ($X_{CAPST}$) data provided shows that, the majority of the companies had balanced capital structure with a mean of 0,527. Standard deviation tells us that there is a moderate dispersion of our samples. According to the kurtosis value for capital structure ($X_{CAPST}$) of 0,197 author highlights that samples are not exhibiting extreme values and the data for this variable has moderate peaks and tails. Furthermore, data provided for the size of the company ($X_{SIZE}$), calculated as a logarithmic value of total assets, tells the reader that with a kurtosis value of -0,106, the data samples have relatively more dispersed distribution with lighter tails than a normal distribution. Skewness value of 0,416 shows that there were some companies with larger amount of total assets compared to the majority, since tails are distributed to the right from the median. Additionally, Growth rate ($X_{GROW}$) descriptive statistics, provides evidence that generally, for the period from 2019 to 2022 in the Finnish Stock Market, companies had a 0,073 yearly growth rate in respect to the growth of their total assets, which is 7,3% for better understanding. However, following kurtosis value of 6,127 shows that the data set has heavy tails of samples distribution.
and there are some extreme values of yearly growth rate. Skewness of 0.680 with a slight to the right distribution from the median value allows to say that there were some companies with considerably higher growth rates compared to the majority. Data collected for ROA has an extremely wide range of 72,280 in respect to the mean which is 6,619. A wide range of values for ROA is possibly connected to the Covid-19 crisis, having diverse impact on different industries. The positive value of skewness of 1.322 for ROA, particularly demonstrates that the majority of companies had moderate returns in the given period, whereas some companies had abnormal Returns on Assets. Similarly, analyzed samples for ROE showed very wide distribution of data samples. Kurtosis value of 17.186, which is more than twice higher than the according index for ROA, shows significantly high-value peaks.

On the strength of provided descriptive statistics, with reliable evidence of the rationality of retrieved data, the author conducted correlation analysis. It is a verified technique of data analysis. It demonstrates the exact relationship between two variables when other variables are not included. It shows a general guideline for the study. If correlation results provide a significant relationship between the relevant variables, then it allows the author to continue and apply more sophisticated statistical analysis techniques. However, correlation analysis has limitations, since it does not cover multiple independent variables' impact on one dependent variable. Hence, it should not be used as the only tool to find the impact between dividends and corporate financial performance.

Table 4, provided below, illustrates the correlation results for studied dependent variables ROA and ROE, including all other independent variables, both qualitative and quantitative. The results for the correlation between qualitative variables, representing years and operating industries, are not included in Table 4, since they do not provide any informative value.

According to Table 4, dividends (\(X_{DIV} \)) have significant correlation coefficients of 0.118 with the Return on Equity (ROE) and 0.177 with the Return on Assets, at 10% and 1% significance levels, respectively. This is the first evidence of dividend impact relevance on corporate financial performance, which follows the objectives of the current research paper. Furthermore, other quantitative variables have significant correlations with either ROE or ROA. The capital structure (\(X_{CAPST} \)) proved to have a negative correlation of -0.365 with ROA at 1% significance level, whereas it did not provide a significant correlation with ROE. The size of the company (\(X_{SIZE} \)) has a negative cor-
relation of -0.131 with ROE at 5% significance level, as well as a negative correlation of -0.247 with ROA at 1% significance level. Moreover, the size of the company ($X_{SIZE}$), had a high positive relationship with dividend ($X_{DIV}$), with a coefficient of 0.457 at 1% confidence level, providing evidence to assume that larger companies paid higher dividends during analyzed years. Additionally, the Growth rate ($X_{GROW}$), had a positive relationship at 1% confidence level with both ROE (0.202) and ROA (0.197). One of the analyzed Years, particularly, Year 2021 ($X_{2021}$), had a positive significant relationship with ROE and ROA. Finally, operating industries of Financial Services ($X_{Fin}$) and Real Estate & Construction ($X_{REC}$), demonstrated significant correlation with both variables representing Financial Performance. Whereas, the industry of Personal & Household Products & Services ($X_{PHGS}$), had a significant correlation only with ROE, at 1% confidence level.

Table 4. Results of Correlation Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROE</th>
<th>ROA</th>
<th>DIV</th>
<th>CAP</th>
<th>SIZE</th>
<th>$X_{GROW}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.758***</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_{DIV}$</td>
<td>0.118*</td>
<td>0.177***</td>
<td>1,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_{CAPST}$</td>
<td>-0.033</td>
<td>-0.365***</td>
<td>-0.078</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X_{SIZE}$</td>
<td>-0.131**</td>
<td>-0.247***</td>
<td>0.457***</td>
<td>0.329***</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>$X_{GROW}$</td>
<td>0.202***</td>
<td>0.197***</td>
<td>-0.049</td>
<td>0.141**</td>
<td>0.070</td>
<td>1,000</td>
</tr>
<tr>
<td>$X_{2019}$</td>
<td>-0.064</td>
<td>-0.044</td>
<td>-0.055</td>
<td>-0.004</td>
<td>0.024</td>
<td>0.138**</td>
</tr>
<tr>
<td>$X_{2020}$</td>
<td>-0.070</td>
<td>-0.053</td>
<td>-0.132**</td>
<td>0.017</td>
<td>0.015</td>
<td>-0.131**</td>
</tr>
<tr>
<td>$X_{2021}$</td>
<td>0.158***</td>
<td>0.114*</td>
<td>0.029</td>
<td>-0.001</td>
<td>0.020</td>
<td>0.155**</td>
</tr>
<tr>
<td>$X_{2022}$</td>
<td>-0.025</td>
<td>-0.017</td>
<td>0.159***</td>
<td>-0.013</td>
<td>0.018</td>
<td>-0.163***</td>
</tr>
<tr>
<td>$X_{IT}$</td>
<td>0.007</td>
<td>0.062</td>
<td>-0.056</td>
<td>-0.165***</td>
<td>-0.175***</td>
<td>-0.009</td>
</tr>
<tr>
<td>$X_{Fin}$</td>
<td>0.121***</td>
<td>0.213***</td>
<td>0.138**</td>
<td>0.014</td>
<td>0.054</td>
<td>-0.009</td>
</tr>
<tr>
<td>$X_{REC}$</td>
<td>-0.136**</td>
<td>-0.151**</td>
<td>-0.133**</td>
<td>0.117*</td>
<td>0.006</td>
<td>-0.114*</td>
</tr>
<tr>
<td>$X_{IP}$</td>
<td>-0.016</td>
<td>-0.069</td>
<td>0.140**</td>
<td>0.125**</td>
<td>0.293***</td>
<td>0.105*</td>
</tr>
<tr>
<td>$X_{FDR}$</td>
<td>-0.049</td>
<td>-0.024</td>
<td>0.089</td>
<td>-0.053</td>
<td>0.066</td>
<td>-0.035</td>
</tr>
<tr>
<td>$X_{MP}$</td>
<td>-0.070</td>
<td>-0.080</td>
<td>-0.048</td>
<td>-0.037</td>
<td>-0.065</td>
<td>-0.024</td>
</tr>
<tr>
<td>$X_{PCS}$</td>
<td>-0.059</td>
<td>-0.049</td>
<td>-0.113*</td>
<td>-0.102*</td>
<td>-0.226***</td>
<td>-0.011</td>
</tr>
<tr>
<td>$X_{PHGS}$</td>
<td>0.190***</td>
<td>0.058</td>
<td>-0.127**</td>
<td>0.084</td>
<td>-0.081</td>
<td>0.055</td>
</tr>
</tbody>
</table>

Note: *** - significance level 1% (p-value <0.01), ** - significance level 5%(p-value <0.05), * - significance level 10%(p-value <0.10)

Summarizing the results provided by Table 4, it is crucial to mention that table illustrates evidence of all quantitative variables showing the statistically significant relationship with either at least one or both variables representing Financial Performance. Concerning qualitative variables representing Years and Operating Industries, not all showed statistically significant relationship, however
some of them did so. Hence, the author states that the strategy for defining variables was chosen correctly.

According to previous chapters, defined variables and correlation results provide a basis for further multiple regression analysis (MLR). This is a certain technique for data analysis that enables to build a model that includes multiple independent variables influencing one dependent variable. In these terms there were build two separate models to analyze dividend impact, including other control independent variables, on Corporate Financial Performance metrics, represented by ROE and ROA. In MLR, there are two values representing statistical significance. The f-statistics value represents significance of the whole model. At the same time, t-statistics separately represent significance for independent variables, which are included in the model.

Beginning with Table 5, which demonstrates the results for the MLR where the dependent variable is ROA. The multiple R-value of 0.598 suggests a moderately strong positive linear relationship between the independent variables and the dependent variable – ROA. It indicates that, collectively, the independent variables explain approximately 59.8% of the variability in the ROA. According to the 10.36 value of F statistics, the described model is statistically significant at 1% level. However, to correspond to the research objectives, it is necessary to concern results for Dividend ($X_{DIV}$) coefficients. Partial linear regression reflects the value of the Dividend ($X_{DIV}$) when other variables are concerned but held constant (0). In that case, Dividend ($X_{DIV}$) proved to have a statistically significant coefficient of 4,058 at 1% significance level. This enables author to accept the hypothesis $H_1$ and $H_{1b}$, since described values of $X_{DIV}$ provide confident evidence of Dividend Policy having a positive relationship with Corporate Financial Performance in the Finnish Stock Market, expressed in ROA accordingly to the Table 5.

Table 5. Results of Multiple Regression Model for ROA

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>t statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>13,795***</td>
<td>5,853***</td>
</tr>
<tr>
<td>$X_{DIV}$</td>
<td>4,058***</td>
<td>4,712***</td>
</tr>
<tr>
<td>$X_{CAPST}$</td>
<td>-12,110***</td>
<td>-5,232***</td>
</tr>
<tr>
<td>$X_{SIZE}$</td>
<td>-1,172***</td>
<td>-5,217***</td>
</tr>
<tr>
<td>$X_{GROW}$</td>
<td>11,996***</td>
<td>4,982***</td>
</tr>
<tr>
<td>$X_{2019}$</td>
<td>-0,809</td>
<td>-0,684</td>
</tr>
<tr>
<td>$X_{2020}$</td>
<td>0,520</td>
<td>0,444</td>
</tr>
</tbody>
</table>
It is important to highlight that for the analyzed period from 2019 to 2022, only the Industry of Financial Services ($X_{Fin}$) and the Industry of Personal Household Goods and Services ($X_{PHGS}$) had a significant impact on ROA. Meaning that during 2019-2022, most sample companies operating in those industries had higher returns.

To develop current research and find justification for the remaining hypothesis $H_{1a}$, the author addresses to the results demonstrated by Table 6. Replacing the dependent variable with ROE, and having the same data for independent variables, provided similar results. First, the current model is statistically significant at 1% level based on the interpretation F-statistics value of 4,354. It describes approximately 43.5% of the variability in ROE considering the impact of independent variables, which is less than for the previously described model. Nevertheless, the model showed a confident positive linear relationship between independent variables and ROE. Furthermore, Dividend ($X_{DIV}$) proved to have a positive relationship with ROE, statistically significant at 1% level, considering other control variables, which allows the author to accept the hypothesis $H_{1a}$.

Table 6. Results of Multiple Regression Model for ROE

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>14,481**</td>
</tr>
<tr>
<td>$X_{DIV}$</td>
<td>8,145***</td>
</tr>
<tr>
<td>$X_{CAPST}$</td>
<td>2,701</td>
</tr>
<tr>
<td>$X_{SIZE}$</td>
<td>-2,327***</td>
</tr>
<tr>
<td>$X_{GROW}$</td>
<td>21,216***</td>
</tr>
</tbody>
</table>
$X_{2019}$ - 2.009
$X_{2020}$ 0.348
$X_{2021}$ 4.995
$X_{2022}$ 4.464
$X_{Fin}$ 10.038*
$X_{REC}$ 0.626
$X_{IP}$ 5.711
$X_{FDR}$ 2.980
$X_{MP}$ 0.000
$X_{PCS}$ 0.373
$X_{PHGS}$ 18.083***

| Multiple R | 0.435 |
| R squared  | 0.189 |
| F-statistics | 4.354*** |
| Observations | 280 |

Note: *** - significance level 1%, ** - significance level 5%, * - significance level 10%

Corresponding to the results from Table 6, the same operating industries, Industry of Financial Services ($X_{Fin}$) and Industry of Personal Household Goods and Services ($X_{PHGS}$), proved to have higher ROE during the years 2019 to 2022 in the Finnish Stock Market.

For both models illustrated by Table 5 and Table 6, independent variables representing Years 2019-2022 did not provide significant results to evaluate the overall impact on returns in the Finnish Stock Market when other variables are considered. At the same time, correlation results from Table 4 found a positive relationship between the Year 2021 ($X_{2021}$) and Corporate Financial Performance metrics. The author assumes that due to more sophisticated analysis considering other variables, analyzing the overall yearly impact did not bring significant outcomes as all industries were included in one model. Having diverse peak returns for sample companies in different industries in the same year did not demonstrate a single direction of general market changes in performance metrics.

## 4 Limitations and Recommendations

While the study provides valuable insights into the impact of the Dividend policy on Corporate Financial Performance metrics in the Finnish stock market, several limitations should be considered. Covid-19 had challenged the Finnish Stock Market during analyzed period. Polarizing returns for diverse industries. Other, earlier years should also be considered for more accurate results to
improve sample size. However, for the last four years, almost complete data is available for most companies; analyzing from earlier years would have been a more challenging issue. When conducting similar analysis, it is crucial to consider metrics for each company consecutively, for each year, to determine the difference. Data collection could become very challenging when collecting the dividend data for more years than was analyzed in the current study. Since some companies went through mergers or acquisitions or other corporate procedures that complicate the relevant dividend data collection process. Another limitation of the current study is that it was built upon relatively general financial metrics. Providing more accurate variables representing capital structure, for instance, using more in-depth metrics focusing on different debt measures, including both the Short-Term Debt and the Long-Term Debt, would improve the quality of the research.

Another limitation of the current study is that all of the variables were included in one model simultaneously, although it provides good guidance for further studies. Separating companies' samples according to their operating industries would provide more accurate results on Dividend policy in each sector, even though it would require more data samples as there might not be enough companies operating in specific industries to provide significant evidence for the according sectors. Similarly, the data analysis could be divided into the analysis for each year relevant to the study. This would allow to consider external economic factors influencing financial performance indexes more specifically.

The introduced Growth rate \( X_{\text{GROW}} \) allows the author to assume that growing companies had more available positive NPV investment opportunities. However, actual data on the availability of NPV-positive investments for the companies would be a key determinant and decisive for future research. It would provide insight into management decisions, allowing future authors to consider two scenarios where cash is either reinvested or distributed as dividends. Although, it would be difficult to collect that information from secondary data sources as it requires access to private corporate information.

5 Conclusion

To conclude, the current research paper provided significant evidence of dividend policy impact on corporate financial performance in the Finnish stock market based on 280 observations for the period of time from 2019 to 2022. The multiple regression analysis (MLR) results provided signifi-
cant insights into the topic. Specifically, dividends demonstrated a statistically significant coefficient on both ROA and ROE. These results confidently supported the hypothesis that dividend policy has a positive relationship with corporate financial performance, as measured by ROA, in the Finnish Stock Market.

The analysis also revealed that specific industries, such as the Industry of Financial Services and the Industry of Personal & Household Products & Services, had a significant impact on both ROA and ROE. Companies operating in these industries demonstrated higher returns compared to other sectors within the Finnish Stock Market during the analyzed period (2019-2022). While the study contributes valuable insights, it is important to acknowledge its limitations. The outbreak of Covid-19 presented challenges to the Finnish Stock Market and resulted in varying returns for different industries. Including earlier years and expanding the sample size could provide a more accurate and comprehensive understanding of the topic. Additionally, incorporating more in-depth metrics related to capital structure and debt measures would enhance the quality of the research. Future studies could consider conducting separate analyses for companies within specific industries to obtain more precise results regarding dividend policy within each sector. Furthermore, examining each relevant year individually would enable a more specific evaluation of external economic factors influencing financial performance.

Despite the limitations, this research provides valuable insights into the relationship between dividend policy and corporate financial performance in the Finnish Stock Market. The results support the hypothesis that dividend policy has a positive impact on corporate financial performance. The findings contribute to the existing literature and serve as a foundation for further research in the field of dividend policy and its implications for firm performance.
References


https://www.tandfonline.com/doi/abs/10.1080/01621459.1968.10480917


Appendices

Appendix 1. List of sampled companies. Nasdaq Helsinki

<table>
<thead>
<tr>
<th>Company examined</th>
<th>Industry</th>
<th>Company examined</th>
<th>Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium Oyj</td>
<td>Financial Services</td>
<td>Keskisuomalainen Oyj</td>
<td>Media &amp; Publishing</td>
</tr>
<tr>
<td>Nordea Bank Abp</td>
<td>Financial Services</td>
<td>PunaMusta Media Oyj</td>
<td>Media &amp; Publishing</td>
</tr>
<tr>
<td>Taaleri Plc</td>
<td>Financial Services</td>
<td>Ilkka Oyj</td>
<td>Media &amp; Publishing</td>
</tr>
<tr>
<td>CapMan Oyj</td>
<td>Financial Services</td>
<td>Sanoma Oyj</td>
<td>Media &amp; Publishing</td>
</tr>
<tr>
<td>Sampo plc</td>
<td>Financial Services</td>
<td>Fiskars Corporation</td>
<td>Personal &amp; Household Products &amp; Services</td>
</tr>
<tr>
<td>Alandsbanken Abp</td>
<td>Financial Services</td>
<td>Puuilo Oyj</td>
<td>Personal &amp; Household Products &amp; Services</td>
</tr>
<tr>
<td>eQ Oyj</td>
<td>Financial Services</td>
<td>Marimekko Oyj</td>
<td>Personal &amp; Household Products &amp; Services</td>
</tr>
<tr>
<td>Company</td>
<td>Industry</td>
<td>Subsidiary</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------</td>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td>United Bankers Plc</td>
<td>Financial Services</td>
<td>Suominen Oyj</td>
<td></td>
</tr>
<tr>
<td>Panostaja Oyj</td>
<td>Financial Services</td>
<td>Relais Group Oyj</td>
<td></td>
</tr>
<tr>
<td>Aktia Bank Abp</td>
<td>Financial Services</td>
<td>Enento Group Oyj</td>
<td></td>
</tr>
<tr>
<td>Inderes Oyj</td>
<td>Financial Services</td>
<td>Lassila &amp; Tikanoja Oyj</td>
<td></td>
</tr>
<tr>
<td>Raisio Plc</td>
<td>Food and Drug retailing</td>
<td>Eezy Plc</td>
<td></td>
</tr>
<tr>
<td>Atria Oyj</td>
<td>Food and Drug retailing</td>
<td>Wulff Group Plc</td>
<td></td>
</tr>
<tr>
<td>Kesko Corporation</td>
<td>Food and Drug retailing</td>
<td>Fondia Oyj</td>
<td></td>
</tr>
<tr>
<td>Apetit Oyj</td>
<td>Food and Drug retailing</td>
<td>Viafin Service Oyj</td>
<td></td>
</tr>
<tr>
<td>Anora Group Oyj</td>
<td>Food and Drug retailing</td>
<td>YIT Corporation</td>
<td></td>
</tr>
<tr>
<td>Olvi plc</td>
<td>Food and Drug retailing</td>
<td>Citycon Oyj</td>
<td></td>
</tr>
<tr>
<td>Oriola Oyj</td>
<td>Food and Drug retailing</td>
<td>Kreate Group Oyj</td>
<td></td>
</tr>
<tr>
<td>Orion Oyj</td>
<td>Food and Drug retailing</td>
<td>Investors House Oyj</td>
<td></td>
</tr>
<tr>
<td>Koskisen Ltd</td>
<td>Industrial Production</td>
<td>Honkarakenne Oyj</td>
<td></td>
</tr>
<tr>
<td>Metsa Board Oyj</td>
<td>Industrial Production</td>
<td>NoHo Partners Plc</td>
<td></td>
</tr>
<tr>
<td>UPM-Kymmene Oyj</td>
<td>Industrial Production</td>
<td>Kojamo Oyj</td>
<td></td>
</tr>
<tr>
<td>Stora Enso Oyj</td>
<td>Industrial Production</td>
<td>Trainers' House Oyj</td>
<td></td>
</tr>
<tr>
<td>Valmet Corporation</td>
<td>Industrial Production</td>
<td>Tietoevry Oyj</td>
<td></td>
</tr>
<tr>
<td>Exel Composites Oyj</td>
<td>Industrial Production</td>
<td>Alma Media Oyj</td>
<td></td>
</tr>
<tr>
<td>Purmo Group Oyj</td>
<td>Industrial Production</td>
<td>Loihde Oyj</td>
<td></td>
</tr>
<tr>
<td>Nokian Tyres plc</td>
<td>Industrial Production</td>
<td>Innofactor Oyj</td>
<td></td>
</tr>
<tr>
<td>Kemira Oyj</td>
<td>Industrial Production</td>
<td>Elisa Oyj</td>
<td></td>
</tr>
<tr>
<td>Glaston Corporation</td>
<td>Industrial Production</td>
<td>Vincit Oyj</td>
<td></td>
</tr>
<tr>
<td>Company Name</td>
<td>Industry Sector</td>
<td>Company Name</td>
<td>Industry Sector</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------------------------</td>
<td>--------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Konecranes Abp</td>
<td>Industrial Production</td>
<td>Nokia Corporation</td>
<td>Software &amp; IT Services</td>
</tr>
<tr>
<td>KONE Corporation</td>
<td>Industrial Production</td>
<td>Digia Oyj</td>
<td>Software &amp; IT Services</td>
</tr>
<tr>
<td>Aspocomp Group Oyj</td>
<td>Industrial Production</td>
<td>Admicom Oyj</td>
<td>Software &amp; IT Services</td>
</tr>
<tr>
<td>Huhtamaki Oyj</td>
<td>Industrial Production</td>
<td>Netum Group Oyj</td>
<td>Software &amp; IT Services</td>
</tr>
<tr>
<td>Harvia Oyj</td>
<td>Industrial Production</td>
<td></td>
<td>Software &amp; IT Services</td>
</tr>
<tr>
<td>Cargotec Corp</td>
<td>Industrial Production</td>
<td></td>
<td>Software &amp; IT Services</td>
</tr>
</tbody>
</table>